

Notice of Allowability

Application No.

09/920,450

Examiner

Juan D Valentin II

Applicant(s)

KOIZUMI ET AL.

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/13/2004.
2. ☒ The allowed claim(s) is/are 3,5 and 10-13.
3. ☒ The drawings filed on 07 December 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with James H. Walters on 11/15/2004.

The application has been amended as follows:

- Please cancel claims 4, 6, 8, 9, & 14.
- Please amend claim 10 as follows:

10. A defect inspection apparatus for a phase shift mask having a phase shifter pattern provided on a mask transparent substrate, comprising a lens means for directing light toward at least two different phase shifter pattern fabricated regions of the phase shift mask from a mask transparent substrate side of said phase shift mask which is opposite to a side thereof where said phase shifter pattern has been formed, at least two light receiving elements for receiving light reflected from the at least two different phase shifter pattern fabricated regions of the phase shift mask, wherein the reflection images of said at least two different phase shifter pattern fabricated regions are captured through respective magnifying optical systems, and a difference judging circuit for judging a difference between the light reflected from one of the at least two different phase shifter pattern fabricated regions and another of the at least two different phase shifter pattern fabricated regions.

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- Please amend claim 13 as follows:

13. A method of inspecting a phase shift mask, comprising the steps of:

positioning a single piece of phase shift mask below two spaced apart magnifying optical retrieval means;

reflecting light from a light source toward two different regions on the phase shift mask;

receiving light reflected from the two different regions by receiving elements via the two spaced apart magnifying optical retrieval means;

comparing electrical signals from the receiving elements; and

judging if any difference detected in said comparing step is greater than a threshold value.

Allowable Subject Matter

2. Claims 3, 5, 10, 11, 12, & 13 are allowed over prior art of record.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 10, the prior art fails to disclose or make obvious “wherein the reflection images of said at least two different phase shifter pattern fabricated regions are captured through respective magnifying optical systems” and in combination with the other recited limitations of claim 10. Claims 3, 5, 11, & 12 are allowed by virtue of dependency on the allowed claim 10.

Regarding claim 13, the prior art fails to disclose or make obvious “receiving light reflected from the two different regions by receiving elements via the two spaced apart magnifying optical retrieval means” and in combination with the other recited limitations of claim 13.

Any comments considered necessary by applicant must be submitted no later than the

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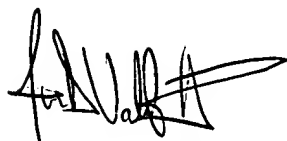
payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan D Valentin II whose telephone number is (571) 272-2433. The examiner can normally be reached on Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J Toatley, Jr. can be reached on (571) 272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Juan D Valentin II
Examiner 2877

JDV

November 15, 2004



Michael P. Stafira
Primary Patent Examiner
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